

ABSTRACT

To provide a semiconductor layer in which a GaN system epitaxial layer having high crystal quality can be obtained.

5 The semiconductor layer includes a β -Ga₂O₃ substrate
1 made of a β -Ga₂O₃ single crystal, a GaN layer 2 formed by
subjecting a surface of the β -Ga₂O₃ substrate 1 to
nitriding processing, and a GaN growth layer 3 formed on
the GaN layer 2 through epitaxial growth by utilizing an
10 MOCVD method. Since lattice constants of the GaN layer 2
and the GaN growth layer 3 match each other, and the GaN
growth layer 3 grows so as to succeed to high crystalline
of the GaN layer 2, the GaN growth layer 3 having high
crystalline is obtained.